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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,893	03/27/2000	Fumihisa Shimono	P/29-1252	3965

7590 04/22/2004

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EXAMINER

MASKULINSKI, MICHAEL C

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 04/22/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)
	09/535,893	SHIMONO, FUMIHISA
Examiner	Art Unit	
Michael C Maskulinski	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 03 March 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,2,6,7,11 and 12 is/are rejected.

7) Claim(s) 3-5,8-10 and 13-15 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

Non-Final Office Action

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 6, and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation: *a connection controlling unit for connecting said disconnected client terminal to said searched client terminal by said search controlling unit independent of a central controller* is not enabled by the specification because a central controller is not disclosed. In order for the connection controlling unit to operate independently of a central controller, it has to exist first.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 2, 6, 7, 11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Hulyalkar et al., U.S. Patent 6,339,585 B1.

Referring to claims 1, 6, and 11:

- a. In column 4, lines 43-44, Hulyalkar et al. disclose base stations that are in selective wireless connection with one or more wireless terminals (a main unit for communicating with said client terminals).
- b. In column 11, lines 46-67, Hulyalkar et al. disclose that the base station (BS) will begin data transmission to the wireless terminal (WT). Such transmission may include a "ping" message to the WT, which would require the WT to respond. If the WT does not respond, the BS may either immediately assume the WT is down or may repeat the acknowledgment request for a preselected number of times (a first fault detecting unit for detecting a fault on said main unit).
- c. In column 11, lines 58-64, Hulyalkar et al. disclose that once the preselected number of times (which may be set to one (1), by way of example) has been exhausted, the BS would then relay the "ping" message to the WT via the TFN (temporary forwarding node). If the WT responds to the TFN and the TFN does receive the acknowledgment it is determined that the link between the BS and WT is down and the WT will communicate with the BS through the TFN (a disconnection controlling unit for disconnecting said client terminal connected to said access point where said fault was detected by said first fault detecting unit).
- d. In column 4, lines 29-30, Hulyalkar et al. disclose wireless terminals and in Fig. 10, Hulyalkar et al. teach bi-directional communication between the wireless

terminals and the base station. Therefore, the wireless terminal has a transceiver unit for communicating with an access point.

e. In column 13, lines 31-36, Hulyalkar et al. disclose that it is possible to select among multiple TFNs. In this configuration, the WT, when discovering that its link with the BS is down, would preferably determine the best TFN, based for example, on the received energy level from the energized TFNs and the multiple TFN phases received by the WT and generated by each respective TFN (a search controlling unit for searching for another client terminal to which said client terminal disconnected from said access point is to be connected).

f. In column 12, lines 17-53, Hulyalkar et al. teach a connection controlling unit for connecting said disconnected client terminal to said searched client terminal by said search controlling unit. Further, in column 8, lines 53-60, Hulyalkar et al. disclose that after synchronization, the WT must "associate" with the network for which it needs an assigned slot. The mechanism to obtain a slot is to send a request for a slot during the E_burst phase. Since the BS/CC is not yet aware of the existence of the WT (independent of the CC), the BS/CC assigns periodically a certain number of E_burst slots to no particular WT, and here the WT randomly selects one of these unassigned slots to ask for the request of a slot in a succeeding CDF.

Referring to claims 2, 7, and 12, in column 14, lines 7-9, Hulyalkar et al. disclose that the TFN would merely be a conduit for transferring signaling messages between the WT and the CC (wherein each of said client terminals further comprises a repeat

controlling unit for controlling communication between said disconnected client terminal and one of said access points connected to said searched client terminal).

Allowable Subject Matter

5. Claims 3-5, 8-10, and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed March 3, 2004 have been fully considered but they are not persuasive.

7. On page 10, under the section REMARKS, the Applicant argues, "Among the limitations of independent claim 1 not present in the cited reference is a connection controlling unit 'a connection controlling unit for connecting said disconnected client terminal to said searched client terminal by said search controlling unit independent of a central controller.' This limitation is not present in the cited reference." On Page 11, the Applicant makes a similar argument for claims 6 and 11. The Examiner respectfully disagrees and would like to note that this argument has been thoroughly addressed in the Final Office Action, paper no. 11, mailed November 19, 2003. For the Applicant's convenience, the Examiner will reiterate the argument. In column 12, lines 17-53, Hulyalkar et al. teach a connection controlling unit for connecting said disconnected client terminal to said searched client terminal by said search controlling unit. In column 8, lines 29-37, Hulyalkar et al. disclose that in an adhoc network, there is still the requirement of a central controller to control the signaling/control information and

available slot allocation, and it is the data information between the WT (wireless terminal) and the CC (central control) that is distributed such that each WT, during its slot "piggybacks" its control information to the CC, where (among other control) messages it specifies the number of slots requested for the next CDF. Thus, through the CC, the wireless terminal (disconnected client terminal) searches for an empty slot. Further, contrary to the Applicant's belief, the wireless terminal connects to another access point independent of the CC. This is disclosed in column 8, lines 53-60: After synchronization, the WT must "associate" with the network for which it needs an assigned slot. The mechanism to obtain a slot is to send a request for a slot during the **E_burst** phase. **Since the BS/CC is not yet aware of the existence of the WT** (independent of the CC), the BS/CC assigns periodically a certain number of **E_burst** slots to no particular WT, and here the WT randomly selects one of these unassigned slots to ask for the request of a slot in a succeeding CDF. In other words, the CC merely provides information to the WT searching for an access point as to what's available. Once the WT knows what's available it searches for it. Further, the CC does not control the connecting.

8. The Examiner suggests, in order to expedite prosecution, including the allowable subject matter of claims 3-5, 8-10, and 13-15 into the respective independent claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C Maskulinski whose telephone number is (703) 308-6674. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MM



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